Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-236. (Canceled)

237. (New) A method of promoting repair of a tissue in a subject in need of tissue repair, comprising topically administering to said subject a composition comprising thymosin beta 4 (TB4) and a pharmaceutically acceptable carrier or vehicle therefore, wherein said composition is administered in an amount effective to repair and revitalize said subject's tissue.

238. (New) The method of claim 237, wherein said tissue is scar tissue.

239. (New) The method of claim 237, wherein said tissue is fibrotic tissue.

240. (New) The method of claim 237, wherein said composition is locally or directly administered to said tissue.

241. (New) The method of claim 237, wherein said tissue is selected from the group consisting of a skin tissue, a dermal tissue, an epidermal tissue, an eye tissue, a corneal tissue, a retinal tissue, a urogenital tissue, a gastro-intestinal tissue, a cardiovascular tissue, a muscle tissue, a connective tissue, a neural tissue, a bone tissue, a cartilage tissue, a breast tissue, a central nervous system tissue, a pancreatic tissue, a liver tissue, a reticulo-endothelial system tissue and an endometrial tissue.

242. (New) The method of claim 241, wherein said tissue is a skin tissue.

243. (New) The method of claim 241, wherein said tissue is an eye tissue.

244. (New) The method of claim 237, wherein said TB4 is recombinant.

245. (New) The method of claim 237, wherein said subject is suffering from a condition selected from the group consisting of impaired wound healing and a fibrotic disorder.

246. (New) The method of claim 237, wherein said subject is suffering from diabetes.

247. (New) The method of claim 237, wherein said subject is suffering from a wound.

248. (New) The method of claim 237, wherein said subject is suffering from a burn, an ulcer, a skin lesion, skin damage, corneal damage or retinal damage.

249. (New) The method of claim 248, wherein said ulcer is a pressure ulcer.

250. (New) The method of claim 248, wherein said ulcer is a diabetic ulcer.

251. (New) The method of claim 245, wherein said impaired wound healing is due to a cell proliferative disorder, atherosclerosis or ischemia.

252. (New) The method of claim 245, wherein said fibrotic disorder is selected from a musculo-skeletal disorder, a neurodegenerative disease, a bone disease or a cardiovascular disease.

253. (New) The method of claim 247, wherein said administering is topically to said wound.

254. (New) The method of claim 253, which further comprises contacting the site of the wound with an agent which promotes wound healing.

255. (New) The method of claim 237, wherein said pharmaceutically acceptable carrier or vehicle is for topical administration.

256. (New) The method of claim 255, wherein said pharmaceutically acceptable carrier is selected from the group consisting of a gel, a cream, a paste, a lotion, a spray, a suspension, a dispersion, a salve, a hydrogel and an ointment.

257. (New) The method of claim 237, wherein said pharmaceutically acceptable carrier comprises a preservative, an antioxidant or a chelating agent.

258. (New) The method of claim 237, which further comprises administering to said subject a polypeptide selected from the group consisting of gelsolin, vitamin D binding protein, profilin, cofilin, depactin, DNasel, vilin, fragmin, severin, capping protein, beta-actinin, acumentin, transforming growth factor beta, IGF, IGF-1, IGF-2, IL-1, PDGF, FGF, KGF, VEGF.

259. (New) The method of claim 237, further comprising administering said composition in an amount effective to revascularize said tissue.

260. (New) The method of claim 237, wherein said composition is administered in an amount effective to increase revascularization of said tissue by about 2 fold compared to untreated tissue.

261. (New) The method of claim 237, wherein said composition is topically administered in an amount effective to increase re-epithelialization of said tissue by at least 2 fold compared to untreated tissue.

262. (New) The method of claim 237, wherein said composition contains greater

than 5 µg of said TB4.

263. (New) The method of claim 237, wherein at least 50 µl of said composition is administered topically.

264. (New) The method of claim 263, wherein said composition contains at least 10% thymosin beta 4 (TB4) by w/v.

265. (New) The method of claim 237, wherein said composition is substantially free of other proteins, lipids, or carbohydrates with which TB4 is naturally associated.

266. (New) The method of claim 237, wherein said TB4 is synthetic.

267. (New) A method of promoting repair of a tissue in a subject in need of tissue repair, comprising systemically administering greater than 6 µg thymosin beta 4 (TB4) in a composition comprising TB4 and a pharmaceutically acceptable carrier or vehicle therefore to said subject, wherein said composition is administered in an amount effective to repair and revitalize said subject's tissue.

268. (New) The method of claim 267, wherein said systemic administering to said subject is by injection, by local injection, by catheter, by aerosol, by inhalation, by osmotic pump, by implantable infusion system, surgically, orally, intranasally, intravenously, intraperitoneally, intramuscularly, subcutaneously or transdermally.

269. (New) The method of claim 267, wherein said composition is intraperitoneally administered to said subject.

270. (New) The method of claim 267, wherein said effective amount of TB4 in said composition to be administered systemically is at least about 60 µg.

271. (New) The method of claim 267, wherein at least 300 µl of said composition is administered intraperitoneally.

272. (New) The method of claim 271, wherein said composition contains at least 20% thymosin beta 4 (TB4) by w/v.

273. (New) The method of claim 267, wherein said tissue is scar tissue.

274. (New) The method of claim 267, wherein said tissue is fibrotic tissue.

275. (New) The method of claim 267, wherein said tissue is selected from the group consisting of a skin tissue, a dermal tissue, an epidermal tissue, an eye tissue, a corneal tissue, a retinal tissue, a urogenital tissue, a gastro-intestinal tissue, a cardiovascular tissue, a muscle tissue, a connective tissue, a neural tissue, a bone tissue, a cartilage tissue, a breast tissue, a central nervous system tissue, a pancreatic tissue, a liver tissue, a reticulo-endothelial system tissue and an endometrial tissue.

276. (New) The method of claim 275, wherein said tissue is a skin tissue.

277. (New) The method of claim 275, wherein said tissue is an eye tissue.

278. (New) The method of claim 267, wherein said TB4 is recombinant.

279. (New) The method of claim 267, wherein said subject is suffering from a condition selected from the group consisting of impaired wound healing and a fibrotic disorder.

280. (New) The method of claim 267, wherein said subject is suffering from diabetes.

281. (New) The method of claim 267, wherein said subject is suffering from a wound.

282. (New) The method of claim 267, wherein said subject is suffering from a burn, an ulcer, a skin lesion, skin damage, corneal damage or retinal damage.

283. (New) The method of claim 282, wherein said ulcer is a pressure ulcer.

284. (New) The method of claim 282, wherein said ulcer is a diabetic ulcer.

285. (New) The method of claim 279, wherein said impaired wound healing is due to a cell proliferative disorder, atherosclerosis or ischemia.

286. (New) The method of claim 280, wherein said fibrotic disorder is selected from a musculo-skeletal disorder, a neurodegenerative disease, a bone disease or a cardiovascular disease.

287. (New) The method of claim 267, wherein said pharmaceutically acceptable carrier or vehicle is for parenteral administration.

288. (New) The method of claim 287, wherein said pharmaceutically acceptable carrier is a solution, suspension or emulsion.

289. (New) The method of claim 288, wherein said carrier comprises a parenteral vehicle selected from the group consisting of saline, sodium chloride solution, Ringer's dextrose, dextrose and sodium chloride, sterile water, polyethylene glycol, vegetable oil, liposomes, an alcoholic/aqueous solution, an alcoholic/aqueous emulsion and an alcoholic/aqueous suspension.

290. (New) The method of claim 267, wherein said pharmaceutically acceptable carrier comprises a preservative, an antioxidant or a chelating agent.

291. (New) The method of claim 267, which further comprises administering to said subject a polypeptide selected from the group consisting of gelsolin, vitamin D binding protein, profilin, cofilin, depactin, DNaseI, vilin, fragmin, severin, capping protein, beta-actinin, acumentin, transforming growth factor beta, IGF, IGF-1, IGF-2, IL-1, PDGF, FGF, KGF, VEGF.

292. (New) The method of claim 267, wherein said composition is substantially free of other proteins, lipids, or carbohydrates with which TB4 is naturally associated.

293. (New) The method of claim 267, wherein said TB4 is synthetic.

294. (New) The method of claim 267, further comprising administering said composition in an amount effective to revascularize said tissue.